APPARATUS FOR OPTIMIZING YARNS ON THE BASIS OF MEASURED

YARN DATA AND METHOD OF OPTIMIZATION

Cross References to Related Applications

Not Applicable

Statement Regarding Federally Sponsored Research or Development

Not Applicable .

Background of the Invention

[0001] The present invention relates to an apparatus for optimizing yarns and woven fabrics on the basis of measured yarn data and to the associated method of optimization.

Technical Field

[0002] The development of new woven fabrics is usually carried out with CAD systems. These known CAD systems allow new fabrics to be developed by changing a large number of parameters. However, in CAD systems the computation is always based on "ideal" yarns, i.e. yarns of which the diameter, fineness and tear strength is constant over the entire yarn.

[0003] In the case of actual yarns, however, the yarn diameters and other yarn properties are not constant over the length of the yarn, as they are in the case of "ideal yarn". For instance, actual yarns have nips, slubs, neps etc., which of course have an effect on the appearance of the later "actual fabric", but are not taken into account in the development of the fabric on the CAD system. This has the effect that the actual fabric obtained often does not meet the expectations of the designer.

[0004] The object of the invention is to improve the systems for developing new fabrics and/or to optimize machine settings or processes in yarn manufacture.

Substitute Specification   1
US Patent Application 09/423,179
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Attorney Docket (K) 53 885